

Charlotte Interchange Area Planning

Name of Tool:	Interchange Area Land Use Plan
Implementing Agency:	City of Charlotte (North Carolina) and the Charlotte-Mecklenburg Planning Commission
Scale of Application:	Local comprehensive planning
Description:	Commercial development around recently constructed interchanges has led to increased congestion on arterial streets in these areas, prompting the city and county government to develop land use plans for the interchanges that manage access and promote internal site design in order to reduce traffic loads on arterials.

Purpose and Need

The rapid growth of the population of the City of Charlotte and its surrounding metropolitan area has been accompanied by an increase in development in the area. This has transformed what was once a primarily rural setting into a more urban landscape, with increased traffic levels and the accompanying problem of congestion. This congestion has been especially noticeable in those areas that surround interchanges between highways and local roads, leading to a noticeable decrease in the quality of life for those who live in the affected communities. The citizens most effected by interchange-area traffic congestion voiced their concerns to the MPO, who turned to the Charlotte-Mecklenburg Planning Commission (CMPC). To address these concerns, the CMPC has worked in partnership with the City of Charlotte and local councils to develop area plans for specific interchanges that address the amount, type, and location of development in interchange areas, as well as internal circulation and external site access.

Description

The responsibilities of the CMPC include developing area plans throughout the region in partnership with the city and local councils. A regional corridor study by the CMPC, initiated in response to citizen concerns about traffic congestion and development in interchange areas, confirmed the need for a more detailed approach to land use planning specifically around interchanges, in addition to the corridor and neighborhood planning studies already undertaken by CMPC.

Although it was too late to restrict the influx of commercial development around interchanges that had already been built, the CMPC saw an opportunity to avert similar congestion-related problems from occurring in areas where interchanges were either under construction or scheduled to be built. As part of the interchange area planning effort, funding was made available for the study of six existing and proposed interchanges within the City of Charlotte. The CMPC spent time with stakeholders to determine what would be an acceptable solution to the traffic problems facing local residents while not impeding those who drove through the region. Through a series of interviews and charrettes, several conceptual designs were created that focused on land use and transportation issues. In some cases, the design of a proposed interchange was altered through the construction of additional access loops or the use of roundabouts rather than traffic lights to regulate flow. In those cases where construction had already been initiated, the CMPC sought to delay the completion so that the surrounding land use could be filled out with residential units prior to the expected arrival of commercial activity. In the areas where construction had not commenced, the plans establish guidance for the site design, size, and type of new developments. "Although there is still

commercial growth and the occasional big box store, it would have been far worse without the plan,” Garet Johnson, Program Manager at the CMPC, said.



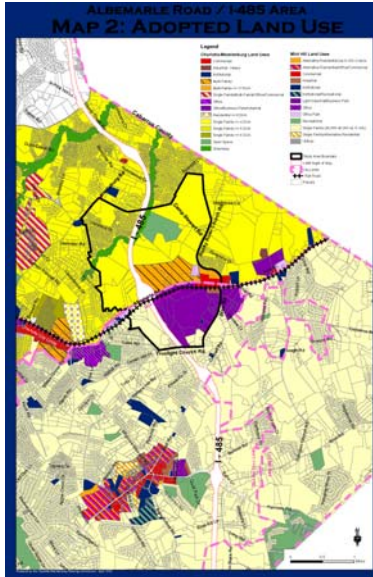
Credit: Charlotte-Mecklenburg Planning Commission
FIGURE 1 -AERIAL VIEW OF I-485 AND ALBEMARLE ROAD

The CMPC reports that turnout at public meetings was higher than usual for neighborhood plans, suggesting a significant interest in the issue. The suggestions that resulted from the meetings were incorporated into the various plans, with the CMPC making compromises between what the public wanted and what was feasible for each study area. Ultimately the final decision rested with the city council over where and to what extent to implement land use controls.

Application Examples

One of the targeted interchanges provides access between I-485 and Albemarle Road. A study conducted by CMPC in 2002 and 2003 aimed to define both the intensity and the arrangement of appropriate land uses, identify infrastructure needs, and provide design guidelines for development. In order to combat the potential congestion that could occur around the interchange, the CMPC took what they considered to be a smart growth approach to dealing with the problem. A series of public meetings and charrettes that involved members of the local communities and other interested stakeholders led to the development of five conceptual designs for the area. An interdepartmental team used the designs as a basis to create an area plan, and presented their recommendation to the local Planning

Commission Board. After two further public meetings that were held for additional feedback, the commission made their own recommendations for the area, which differed substantially from the interdepartmental findings. The Charlotte City Council examined both sets of recommendations, and subsequently adopted a plan for the area that combined some elements from each of the two plans.



Credit: Charlotte-Mecklenburg Planning Commission
FIGURE 2 - ADOPTED LAND USE PLAN FOR THE I-485/ALBEMARLE ROAD AREA

Although it is too early to assess the results, transportation models indicate that the interchange and related development will not lead to any significant change in congestion within the study area. This is due to the combination of a high-capacity interchange with a well-integrated mixture of land uses. While the recommended land use mix includes both additional employment and high density residential development, internal circulation and a mix of uses will help minimize demands on the arterial system. The higher density setting should also increase the use of transit within the area, helping to offset the increased number of vehicles that will arrive with the new residents.

Successes and Lessons Learned

The interchange study process was not an additional cost to the CMPC; rather it represented a reallocation of resources as community priorities changed. Furthermore, the CMPC prioritized the interchange studies so that they could target those that were scheduled for completion earliest before those that were still years away from completion. The implementation of the plans and the time required to monitor the effects has led to an increased workload at the CMPC, but no additional staff have been hired. The effort, however, would be sufficient to employ a full time staff person.

CMPC staff report that the plans have been a success. In general, the City of Charlotte has undertaken rezoning consistent with the plans despite pressure on the city council from commercial interests, although there have been a few instances where the zoning was changed to accommodate these desires. "There has been a positive impact on transportation," Johnson said. "After the initial interchanges opened, traffic quickly began backing up. With the recent interchanges, the only congestion was there before."

The process also raised the level of awareness in the stakeholders of how land use affects transportation. The city council especially has begun to look at these interactions in a new light, despite constant pressure from commercial interests who seek less restrictive zoning policies. It is hoped by planning officials that the lessons learned by stakeholders and politicians alike will help ensure that similar difficulties can be avoided in the future.

For Further Information

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Publications:

- Completed plans can be downloaded from [Charlotte-Mecklenburg Planning Commission](#)